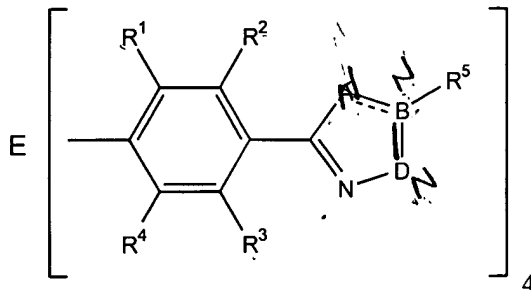


In the claims:

1. (Original) A compound of the following formula:



wherein

each of R^1 - R^4 is, independently, H, substituted or unsubstituted C_{1-6} alkyl, OH, C_{1-6} alkoxy, $N(R^6)(R^7)$, in which each of R^6 and R^7 is, independently, H or substituted or unsubstituted C_{1-6} alkyl, NO_2 , CN, or CO_2R^8 , in which R^8 is H or C_{1-6} alkyl; and

wherein R^5 is H, substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, substituted or unsubstituted C_{6-20} aryl, substituted or unsubstituted alkylaryl, substituted or unsubstituted C_{4-20} heteroaryl, C_{10-20} diarylaminoaryl, or is absent, or B and D, together with R^5 and R^{11} , are substituted or unsubstituted aryl;

wherein A is O, S, $N(R^9)$ in which R^9 is absent, H, substituted or unsubstituted alkyl, or substituted or unsubstituted aryl, $N=N$, or $N=C(R^{10})$ in which the C is adjacent to B and in which R^{10} is substituted or unsubstituted alkyl, or substituted or unsubstituted aryl;

wherein B is C or N;

wherein D is N, NH, or $C(R^{11})$ in which R^{11} is substituted or unsubstituted alkyl, or substituted or unsubstituted aryl, or B and D, together with R^5 and R^{11} are substituted or unsubstituted aryl;

and wherein E is C or Si;

provided that when A is O and D is N, then B is C and the floating double bond is between B and D;

further provided that when A is $N(R^9)$ and R^9 is absent, then B is N, R^5 is absent, D is NH, and the floating double bond is between A and B;

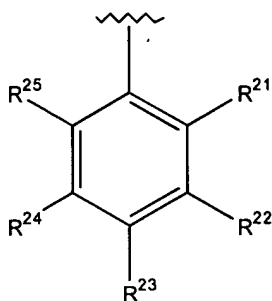
further provided that when A is N=N, then B is C, D is N, and the floating double bond is between B and D;

further provided that when A is N=C(R¹⁰), then B is N, R⁵ is absent, D is C(R¹¹), and the floating double bond is between B and D;

further provided that when A is N(R⁹) and R⁹ is H, alkyl, or aryl, then B is C, D is C(R¹¹), and the floating double bond is between B and D;

further provided that when A is O or S and D is C(R¹¹), then B is C and the floating double bond is between B and D.

2. (Original) The compound of claim 1, wherein A is O.
3. (Original) The compound of claim 2, wherein each of R¹-R⁴ is H.
4. (Original) The compound of claim 2, wherein R⁵ is substituted or unsubstituted aryl, or substituted or unsubstituted alkylaryl.
5. (Original) The compound of claim 4, wherein R⁵ has the following formula:



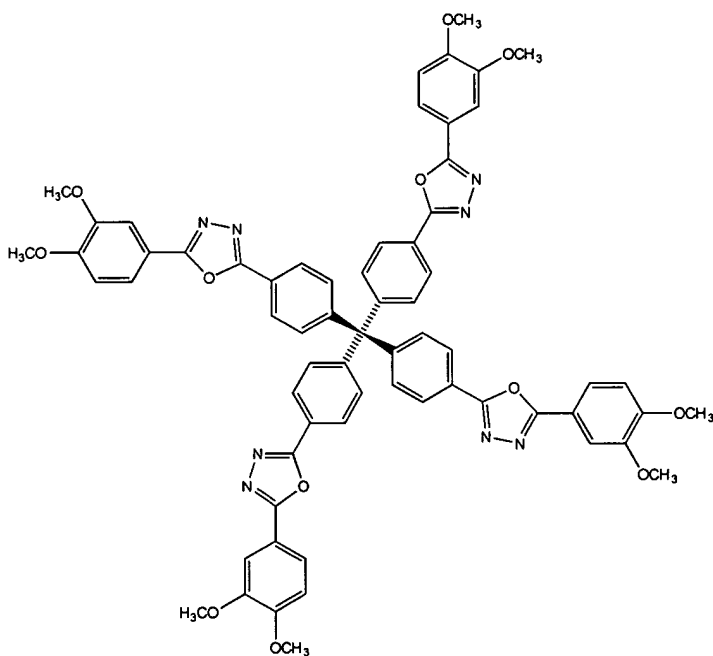
wherein each of R²¹-R²⁵ is, independently, H, substituted or unsubstituted C₁₋₆ alkyl, OH, C₁₋₆ alkoxy, N(R²⁶)(R²⁷), in which each of R²⁶ and R²⁷ is, independently, H, substituted or unsubstituted C₁₋₆ alkyl, substituted or unsubstituted aryl, substituted or unsubstituted alkylaryl, NO₂, CN, or CO₂R²⁸, in which R²⁸ is H or C₁₋₆ alkyl.

6. (Original) The compound of claim 5, wherein each of R²¹-R²⁵ is, independently, H or methoxy.

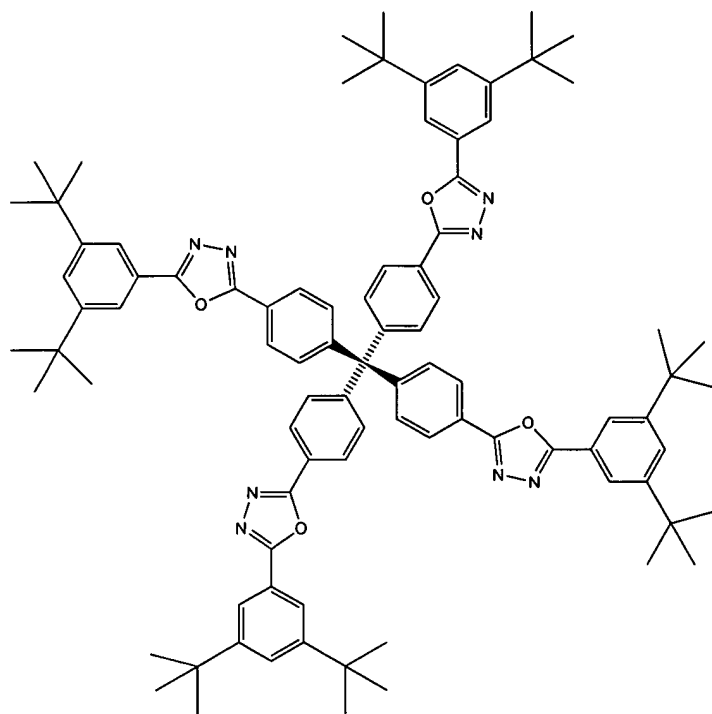
7. (Original) The compound of claim 5, wherein each of R^{21} - R^{25} is, independently, H or tert-butyl.

8. (Original) The compound of claim 5, wherein each of R^{21} - R^{25} is, independently, H or trifluoromethyl.

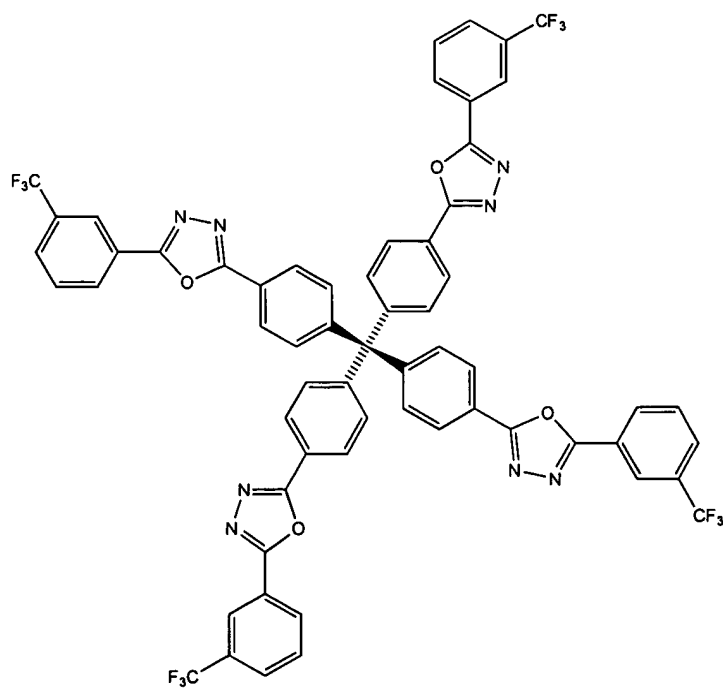
9. (Original) The compound of claim 1, wherein the compound has the following formula:



10. (Original) The compound of claim 1, wherein the compound has the following formula:

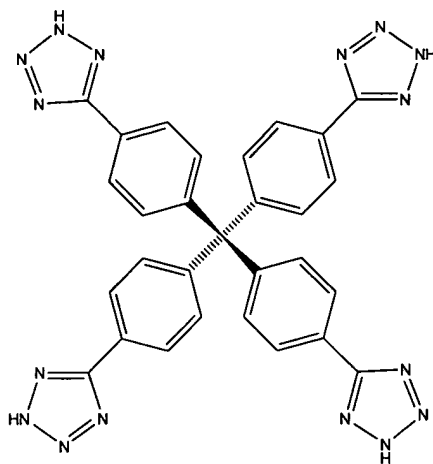


11. (Original) The compound of claim 1, wherein the compound has the following formula:

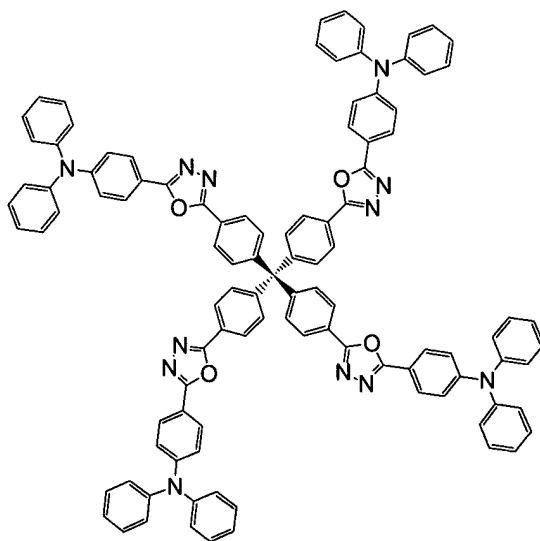


12. (Original) The compound of claim 1, wherein A is $N(R^9)$, in which R^9 is absent.

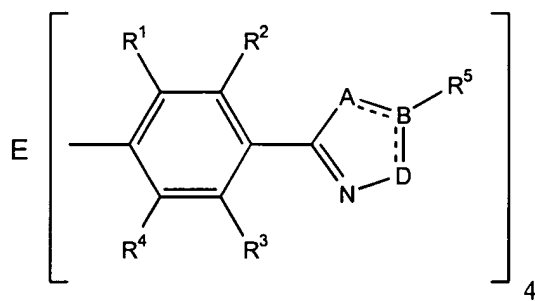
13. (Original) The compound of claim 12, wherein the compound has the following formula:



14. (Original) The compound of claim 1, wherein the compound has the following formula:



15. (Original) An electroluminescence device comprising a substrate, a hole transporting layer, and emitting layer, and an electron transporting layer, wherein at least one of the hole transporting layer, the emitting layer, and the electron transporting layer comprises a compound having the following formula:



wherein

each of R^1 - R^4 is, independently, H, substituted or unsubstituted C_{1-6} alkyl, OH, C_{1-6} alkoxy, $N(R^6)(R^7)$, in which each of R^6 and R^7 is, independently, H or substituted or unsubstituted C_{1-6} alkyl, NO_2 , CN, or CO_2R^8 , in which R^8 is H or C_{1-6} alkyl; and

wherein R^5 is H, substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, substituted or unsubstituted C_{6-20} aryl, substituted or unsubstituted alkylaryl, substituted or unsubstituted C_{4-20} heteroaryl, C_{10-20} diarylaminoaryl, or is absent, or B and D, together with R^5 and R^{11} , are substituted or unsubstituted aryl;

wherein A is O, S, $N(R^9)$ in which R^9 is absent, H, substituted or unsubstituted alkyl, or substituted or unsubstituted aryl, $N=N$, or $N=C(R^{10})$ in which the C is adjacent to B and in which R^{10} is substituted or unsubstituted alkyl, or substituted or unsubstituted aryl;

wherein B is C or N;

wherein D is N, NH, or $C(R^{11})$ in which R^{11} is substituted or unsubstituted alkyl, or substituted or unsubstituted aryl, or B and D, together with R^5 and R^{11} are substituted or unsubstituted aryl;

and wherein E is C or Si;

provided that when A is O and D is N, then B is C and the floating double bond is between B and D;

further provided that when A is N(R⁹) and R⁹ is absent, then B is N, R⁵ is absent, D is NH, and the floating double bond is between A and B;

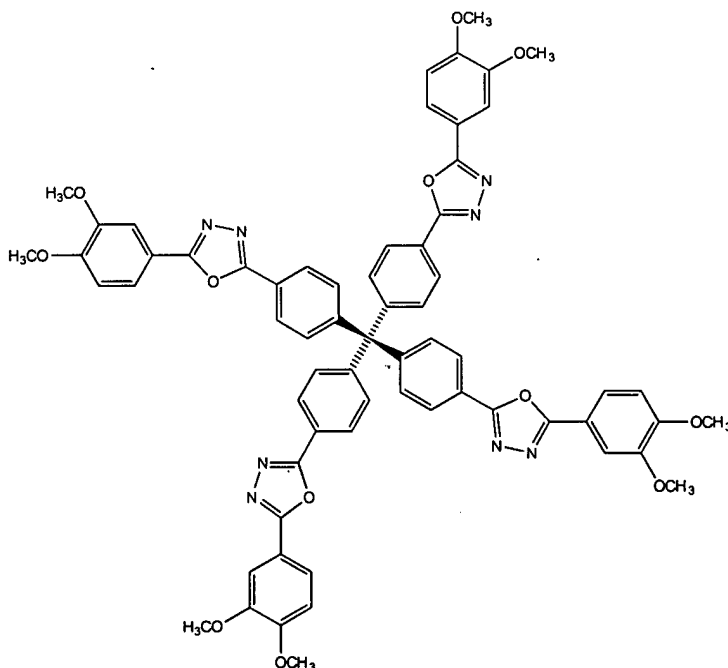
further provided that when A is N=N, then B is C, D is N, and the floating double bond is between B and D;

further provided that when A is N=C(R¹⁰), then B is N, R⁵ is absent, D is C(R¹¹), and the floating double bond is between B and D;

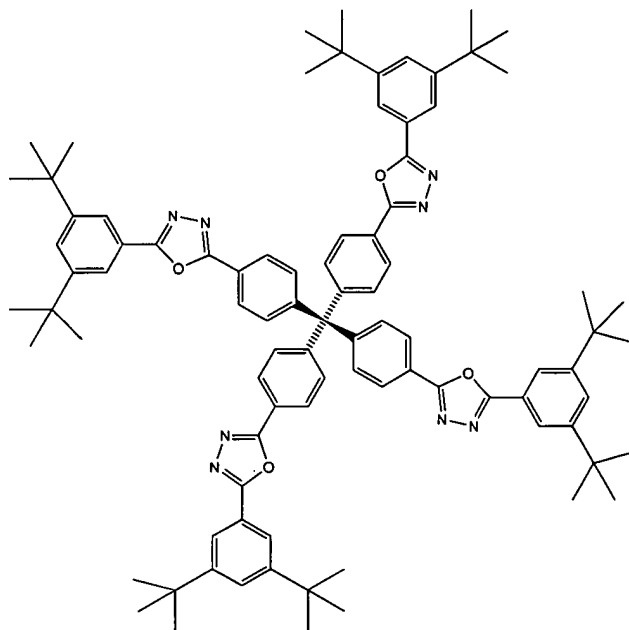
further provided that when A is N(R⁹) and R⁹ is H, alkyl, or aryl, then B is C, D is C(R¹¹), and the floating double bond is between B and D;

further provided that when A is O or S and D is C(R¹¹), then B is C and the floating double bond is between B and D.

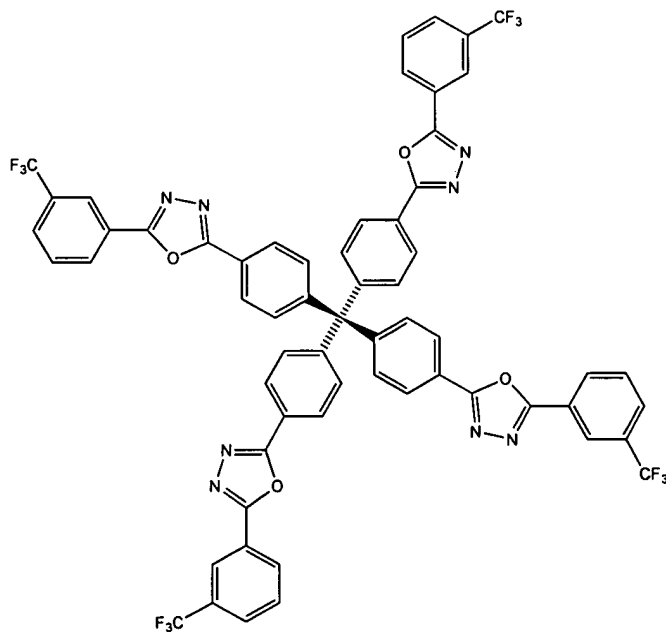
16. (Original) The device of claim 15, wherein A is O, B is C, and D is N.
17. (Original) The device of claim 16, wherein each of R¹-R⁴ is H.
18. (Original) The device of claim 15, wherein the compound has the following formula:



19. (Original) The device of claim 15, wherein the compound has the following formula:



20. (Original) The device of claim 15, wherein the compound has the following formula:



21. (Original) The device of claim 14, wherein the compound has the following formula:

